

WHAT IS CLAIMED IS:

1 1. For use in a digital video recorder, an apparatus for
2 performing time-shifted viewing of an incoming television program
3 being received by said digital video recorder, the apparatus
4 comprising:

5 a controller capable of creating a data file having a
6 defined maximum size on a storage disk of said digital video
7 recorder and capable of causing video data associated with said
8 incoming television program to be stored sequentially in said data
9 file from a first location to an Nth location, wherein said
10 controller, in response to a determination that said video data has
11 been stored in said Nth location, causes a next received video data
12 to be stored in said first location.

1 2. The apparatus as set forth in Claim 1 wherein said
2 controller uses a write pointer to cause said video data to be
3 stored sequentially in said data file from said first location to
4 said Nth location.

1 3. The apparatus as set forth in Claim 2 wherein said
2 controller updates said write pointer each time said video data is
3 stored to a location in said data file to thereby cause said video
4 data to be stored sequentially in said data file from said first
5 location to said Nth location.

1 4. The apparatus as set forth in Claim 3 wherein said
2 controller determines that said video data has been stored in said
3 Nth location when said write pointer is equal to a value associated
4 with said defined maximum size.

1 5. The apparatus as set forth in Claim 4 wherein said
2 controller causes said next received video data to be stored in
3 said first location by resetting said write pointer to a value
4 associated with said first memory location.

1 6. The apparatus as set forth in Claim 1 wherein said
2 controller is further capable of causing stored video data to be
3 retrieved sequentially from said data file from said first location
4 to said Nth location.

1 7. The apparatus as set forth in Claim 6 wherein said
2 controller, in response to a determination that said stored video
3 data has been retrieved from said Nth location, causes a next
4 stored video data to be retrieved from said first location.

1 8. The apparatus as set forth in Claim 7 wherein said
2 controller uses a read pointer to cause said stored video data to
3 be retrieved sequentially from said data file from said first
4 location to said Nth location.

1 9. The apparatus as set forth in Claim 8 wherein said
2 controller updates said read pointer each time said stored video
3 data is retrieved from a location in said data file to thereby
4 cause said stored video data to be retrieved sequentially from said
data file from said first location to said Nth location.

1 10. A digital video recorder capable of time-shifted viewing
2 of an incoming television program being received by said digital
3 video recorder, said digital video recorder comprising:

4 a video processor capable of receiving said incoming
5 television program and converting said incoming television program
6 to a baseband video signal capable of being displayed on a
7 television set coupled to said digital video recorder;

8 a storage disk for storing said incoming television
9 program; and

10 a controller capable of creating on said storage disk a
11 data file having a defined maximum size and capable of causing
12 video data associated with said incoming television program to be
13 stored sequentially in said data file from a first location to an
14 Nth location, wherein said controller, in response to a
15 determination that said video data has been stored in said Nth
16 location, causes a next received video data to be stored in said
17 first location.

1 11. The digital video recorder as set forth in Claim 10
2 wherein said controller uses a write pointer to cause said video
3 data to be stored sequentially in said data file from said first
4 location to said Nth location.

1 12. The digital video recorder as set forth in Claim 11
2 wherein said controller updates said write pointer each time said
3 video data is stored to a location in said data file to thereby
4 cause said video data to be stored sequentially in said data file
5 from said first location to said Nth location.

1 13. The digital video recorder as set forth in Claim 12
2 wherein said controller determines that said video data has been
3 stored in said Nth location when said write pointer is equal to a
4 value associated with said defined maximum size.

1 14. The digital video recorder as set forth in Claim 13
2 wherein said controller causes said next received video data to be
3 stored in said first location by resetting said write pointer to a
4 value associated with said first memory location.

1 15. The digital video recorder as set forth in Claim 10
2 wherein said controller is further capable of causing stored video
3 data to be retrieved sequentially from said data file from said
4 first location to said Nth location.

1 16. The digital video recorder as set forth in Claim 15
2 wherein said controller, in response to a determination that said
3 stored video data has been retrieved from said Nth location, causes
4 a next stored video data to be retrieved from said first location.

1 17. The digital video recorder as set forth in Claim 16
2 wherein said controller uses a read pointer to cause said stored
3 video data to be retrieved sequentially from said data file from
4 said first location to said Nth location.

1 18. The digital video recorder as set forth in Claim 17
2 wherein said controller updates said read pointer each time said
3 stored video data is retrieved from a location in said data file to
4 thereby cause said stored video data to be retrieved sequentially
5 from said data file from said first location to said Nth location.

1 19. For use in a digital video recorder, a method for
2 performing time-shifted viewing of an incoming television program
3 being received by the digital video recorder, the method comprising
4 the steps of:

5 in response to receipt of a pause command, creating a
6 data file having a defined maximum size on a storage disk of the
7 digital video recorder;

8 storing video data from the incoming television program
9 in the data file sequentially from a first location to an Nth
10 location;

11 determining whether video data has been stored in the Nth
12 location; and

13 in response to a determination that video data has been
14 stored in the Nth location, storing a next received video data in
15 the first location.

1 20. The method as set forth in Claim 19 further comprising
2 the step of retrieving stored video data sequentially from the data
3 file from the first location to the Nth location.

1 21. The method as set forth in Claim 20 further comprising
2 the steps of:

3 determining whether stored video data has been retrieved
4 from the Nth location; and

5 in response to a determination that video data has been
6 retrieved from the Nth location retrieving a next stored video data
7 from the first location.